#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020071 Address: 333 Burma Road **Date Inspected:** 31-Jan-2011

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. Oui Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

**Bridge No:** 34-0006 **Component: OBG** Segment

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 008307

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

1. SEG3011M-021~044, 069~092

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020D-052 located on Floor Beam to Bottom Plate of OBG Segment 14W. ZPMC Welders are identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2734-R1.

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SMAW repair welding of weld joint SEG3020E-056 located on Floor Beam to Bottom Plate of OBG Segment 14W. ZPMC Welders are identified as 066398. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2734-R1.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3014F-351 located on Deck Panel Diaphragm of OBG Segment 13BW. ZPMC Welders are identified as 066734 and 201583. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

SMAW welding of weld joint SEG3015J-002 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 123 of OBG Segment 13CW. ZPMC Welder is identified as 037932. ZPMC Quality Control (QC) is identified as Mr. Qui Wen. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM.

SMAW welding of weld joint SEG3015J-002 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 124 of OBG Segment 13CW. ZPMC Welder is identified as 207840. ZPMC Quality Control (QC) is identified as Mr. Qui Wen. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM.

SMAW welding of weld joint SEG3015L-010 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 122.5 of OBG Segment 13CW. ZPMC Welder is identified as 066674. ZPMC Quality Control (QC) is identified as Mr. Qui Wen. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM.

FCAW welding of weld joint OBE-13A-009 located on OBG Segment 13BE deck panel to OBG Segment 13CE deck panel. ZPMC Welder is identified as 215993. ZPMC Quality Control (QC) is identified as Mr. Lu Li Qing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-223(2)1T-ESAB-1.

Sub Merged Arc (SAW) welding of weld joint OBE-13A-009 located on deck panel to deck pane splice weld joint of OBG Segment 13BE to OBG Segment 13CE. ZPMC Welder is identified as 047771. ZPMC Quality Control (QC) is identified as Mr. Lu Li Qing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2221-B-L2c-S-2. See the attached picture.

ABF Quality Assurance (QA) personnel performing Ultrasonic Testing (UT) for the deck panel to deck panel splice weld joint located on OBG Segment 13BE. The weld is identified as SEG3009-004.

FCAW welding of weld joint SEG3019BB-047 located on Anchorage Plate to Vertical Shear Plate at bike path side of OBG Segment 14E. ZPMC Welder is identified as 066763. ZPMC Quality Control (QC) is identified as Mr. Guo Shi Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

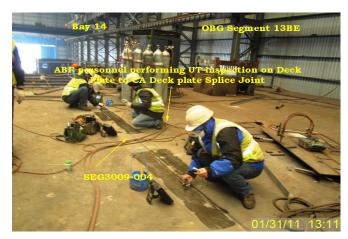
FCAW welding of weld joint SEG3019BB-069 located on Anchorage Plate to Vertical Shear Plate at bike path side of OBG Segment 14E. ZPMC Welder is identified as 067099. ZPMC Quality Control (QC) is identified as Mr.

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Guo Shi Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar, Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer